

ing respectively to different individual ones of the pixel values of the corresponding set, wherein bits in different bit registers at bit positions corresponding to a particular one of the pixel values indicate the truth or falsity of different possible relationships between the particular pixel value and other individual ones of the pixel values in the same set;

logically ANDing different combinations of the bit registers to form a plurality of parallel condition registers having bit positions corresponding respectively to different individual ones of the pixel values of the different sets;

evaluating the parallel condition registers to determine the median values of the different sets, wherein a true value at any particular bit position in any of the parallel condition registers indicates that the pixel value corresponding to that particular bit position is the median value of its set;

within each set of pixel values, replacing the value of the center pixel with the value of the median value of the set.

2. A method as recited in claim 1, wherein the ANDing step is performed using a single-instruction/multiple-data processor instruction.

3. A method as recited in claim 1, wherein the ANDing and evaluating steps are performed using single-instruction/multiple-data processor instructions.

4. A method as recited in claim 1, wherein the evaluating step comprises logically ORing the parallel condition registers to produce a result register having bit positions corresponding respectively to different individual ones of the pixel values, wherein a true value at any particular bit position of the result register indicates that the pixel value corresponding to that particular bit position is the median value of its set.

5. A method as recited in claim 1, wherein the evaluating step comprises logically ORing the parallel condition registers to produce a result vector having bit positions corresponding respectively to different individual ones of the pixel values, wherein a true value at any particular bit position of the result vector indicates that the pixel value corresponding to that particular bit position is the median value of its set;

the method comprising a further step of indexing a lookup table with the result vector.

6. A method as recited in claim 1, wherein the bit registers and parallel condition registers have bit positions corresponding to all but one of the pixel values of any given set, and wherein an absence of a true value in the parallel condition registers indicates that said one of the pixel values is the median.

7. A method as recited in claim 1, wherein the bits at bit positions corresponding to a particular one of the pixel values indicate the truth or falsity of all possible relationships between the particular pixel value and all other individual ones of the pixel values.

8. A method as recited in claim 1, wherein each bit indicates whether one of the pixel values is greater than another of the pixel values.

9. A method of finding a median value from a plurality of given values, comprising the following steps:

forming a plurality of bit registers having bit positions corresponding respectively to different individual ones of the given values, wherein bits in different bit registers at bit positions corresponding to a particular one of the given values indicate the truth or falsity of different

possible relationships between the particular given value and other individual ones of the given values;

logically ANDing different combinations of the bit registers to form a plurality of parallel condition registers having bit positions corresponding respectively to different individual ones of the given values;

evaluating the parallel condition registers to determine the median value, wherein a true value at any particular bit position in any of the parallel condition registers indicates that the given value corresponding to that particular bit position is the median value.

10. A method as recited in claim 9, wherein the ANDing step is performed using a single-instruction/multiple-data processor instruction.

11. A method as recited in claim 9, wherein the ANDing and evaluating steps are performed using single-instruction/multiple-data processor instructions.

12. A method as recited in claim 9, wherein the evaluating step comprises logically ORing the parallel condition registers to produce a result register having bit positions corresponding respectively to different individual ones of the given values, wherein a true value at any particular bit position of the result register indicates that the given value corresponding to that particular bit position is the median value.

13. A method as recited in claim 9, wherein the evaluating step comprises logically ORing the parallel condition registers to produce a result vector having bit positions corresponding respectively to different individual ones of the given values, wherein a true value at any particular bit position of the result vector indicates that the given value corresponding to that particular bit position is the median value;

the method comprising a further step of indexing a lookup table with the result vector.

14. A method as recited in claim 9, wherein the bit positions correspond to all but one of the given values, and wherein an absence of a true value in any of the parallel condition registers indicates that said one of the given values is the median.

15. A method as recited in claim 9, wherein the bits at bit positions corresponding to a particular one of the given values indicate the truth or falsity of all possible relationships between the particular given value and all other individual ones of the given values.

16. A method as recited in claim 9, wherein each bit indicates whether one of the given values is greater than another of the given values.

17. A method of finding median values from different sets of given values, comprising the following steps:

forming a plurality of bit registers having bit groups corresponding respectively to the different sets of given values, each bit group having bit positions corresponding respectively to different individual ones of the given values of the corresponding set, wherein bits in different bit registers at bit positions corresponding to a particular one of the given values indicate the truth or falsity of different possible relationships between the particular given value and other individual ones of the given values in the same set;

logically ANDing different combinations of the bit registers to form a plurality of parallel condition registers having bit positions corresponding respectively to different individual ones of the given values of the different sets;

evaluating the parallel condition registers to determine the median values of the different sets, wherein a true value